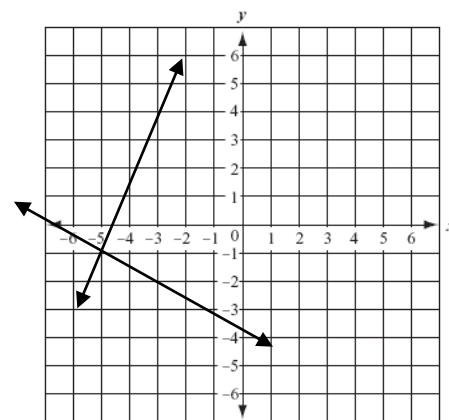


Systems of Equations/Inequalities Review Sheet

1. Identify the solution to the linear system.



2. Is the point $(-4, 2)$ a solution for the system of equations below?

$$6x + 8y = -8$$

$$y - x = 6$$

3. Is the point $(8, 10)$ a solution for the system of equation below?

$$-2x + y = -6$$

$$3y + x = 34$$

4. Is the point $(5, -3)$ a solution for the system of inequalities below?

$$4x + y \geq 7$$

$$2y + 3x < 11$$

5. Solve using Elimination method.

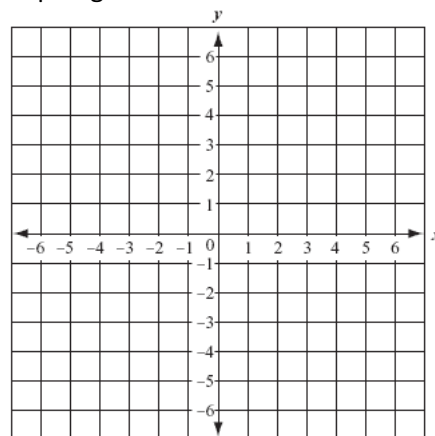
$$-4x + 2y = 5$$

$$3x + 5y = 6$$

6. Solve using Graphing method.

$$y = -x + 8$$

$$y + 2 = x$$



7. Solve using Substitution method.

$$2x + y = -1$$

$$-6x = 3y - 15$$

8. Solve using the method of your choice.

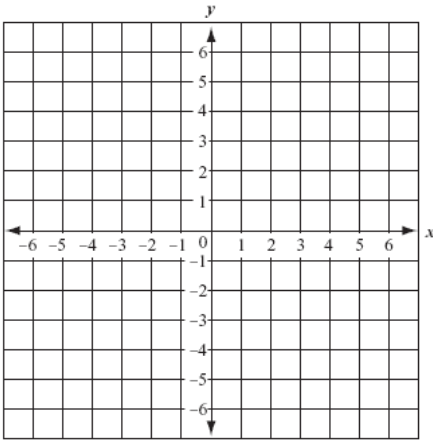
$$15x - 5y = -20$$

$$-3x + y = 4$$

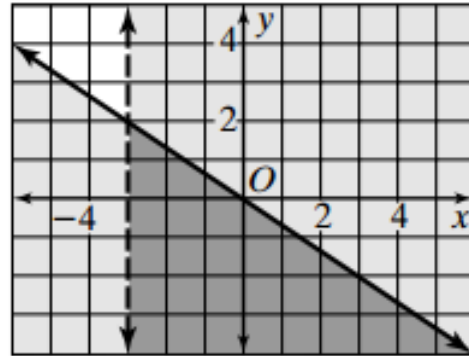
10. Graph the following system of inequalities.

$$y \geq x - 5$$

$$y < -2x + 1$$



11. Write the system of inequalities shown on the graph.



12. In the Bulk Foods section at Wegmans, you can make your own snack mix! For your party, you are going to mix pretzels and raisins to make 15 pounds of snack mix. Pretzels cost \$3 per pound and raisins cost \$5 per pound. How many pounds of each should you mix if you are going to spend \$53 on snack mix?

Variables: _____ = _____
 _____ = _____

System: _____

Answer: _____

13. You are going to dinner and a football game, and you have two different plans as options. The Family Pack provides 3 pizzas and 6 football tickets for \$468. The Party Pack provides 4 pizzas and 10 football tickets for \$768. How much does one pizza cost and how much does one football ticket cost?

Variables: _____ = _____
 _____ = _____

System: _____

Answer: _____

14. The Rocket Coaster has 15 cars, some that hold 4 people and some that hold 6 people. There is room for 72 people all together. How many 4 passenger cars are there? How many 6 passenger cars are there?

Variables: _____ = _____
 _____ = _____

System: _____

Answer: _____

15. $5x - 4y + 2z = 21$
 $-x - 5y + 6z = -24$
 $-x - 4y + 5z = -21$

16. $-6x - 2y - z = -17$
 $5x + y - 6z = 19$
 $-4x - 6y - 6z = -20$